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1. A high-speed roaming method of a wireless LAN comprising a network, a plurality of access points provided in the network, and a mobile terminal that is radio-connected to one of said plurality of access points via a communication system using a frequency hopping, wherein

each of said access points

registers previously a predetermined number of access points out of respective neighboring access points as neighboring access points,

sends out hopping information of the own access point thereof periodically to the network at mutually different timings,

receives the hopping information of the neighboring access points out of respective access points to construct the own access points thereof as a database, and

synchronize all access points in a same subnet of the network and sends out radio beacons synchronously from said access points; and

said mobile terminal

monitors said radio beacons of a connected access point and downloads hopping information of the neighboring access points from said connected access point,

monitors radio beacons of said neighboring access points based on the hopping information,

construct the monitored hopping information as a database to always compare radio environments, and

select and connect the access point having a best radio situation by referring the database of said neighboring access points when a quality of the radio beacon of said connected access point is reduced lower than a predetermined value.

2. The high-speed roaming method of a wireless LAN according to claim 1, wherein

each of said access points sets previously one access point of respective access points connected to the same subnet as a master access point, and sets the access points other than said master access point as slave access points,

said master access point sends out a master beacon containing time information to the network at a predetermined time interval, and

said slave access points are operated in synchronism with said master access point by receiving said master beacon and comparing time information contained in said master beacon with the own time information thereof to correct.

3. The high-speed roaming method of a wireless LAN according to claim 2, wherein

when an operation of said master access point is stopped because of a predetermined reason, another access point

connected to the same subnet backups said master access point in place of said master access point.

4. (Amended) The high speed roaming method of a wireless LAN according to claim 1, wherein

when said mobile terminal is connected to said access point having a best radio situation, said mobile terminal is connected subsequently to said access point having a second best radio situation.

A1 Cont.

5. (Amended) The high-speed roaming method of a wireless LAN according to claim 1, wherein

when said mobile terminal is not connected to all neighboring access points, said mobile terminal is connected to said access point having a good communication situation by scanning all frequency channels.

6. (Amended) The high-speed roaming method of a wireless LAN according to claim 1, wherein

A1 Cont.

said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

7. (New) The high speed roaming method of a wireless LAN according to claim 2, wherein when said mobile terminal is connected to said access point having a best radio situation, said mobile terminal is connected subsequently to said access point having a second best radio situation.

A2 Cont.

8. (New) The high speed roaming method of a wireless LAN according to claim 3, wherein when said mobile terminal is connected to said access point having a best radio situation, said mobile terminal is connected subsequently to said access point having a second best radio situation.

9. (New) The high-speed roaming method of a wireless LAN according to claim 2, wherein when said mobile terminal is not connected to all neighboring access points, said mobile terminal is connected to said access point having a good communication situation by scanning all frequency channels.

10. (New) The high-speed roaming method of a wireless LAN according to claim 3, wherein when said mobile terminal is not connected to all neighboring access points, said mobile terminal is connected to said access point having a good communication situation by scanning all frequency channels.

11. (New) The high-speed roaming method of a wireless LAN according to claim 4, wherein when said mobile terminal is not connected to all neighboring access points, said mobile terminal is connected to said access point having a good communication situation by scanning all frequency channels.

12. (New) The high-speed roaming method of a wireless LAN according to claim 2, wherein said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

13. (New) The high-speed roaming method of a wireless LAN according to claim 3, wherein said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

14. (New) The high-speed roaming method of a wireless LAN according to claim 4, wherein said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the

network at a rising time.

15. (New) The high-speed roaming method of a wireless LAN according to claim 5, wherein said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

A2 Cont

16. (New) The high-speed roaming method of a wireless LAN according to claim 7, wherein said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

17. (New) The high-speed roaming method of a wireless LAN according to claim 8, wherein said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

18. (New) The high-speed roaming method of a wireless LAN according to claim 9, wherein said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

19. (New) The high-speed roaming method of a wireless LAN according to claim 10,

wherein

said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.

20. (New) The high-speed roaming method of a wireless LAN according to claim 11, wherein

said mobile terminal is connected to said access point having a best communication situation, by scanning all connectable access points out of said access points provided in the network at a rising time.